Contribution ID: **18** Type: **not specified**

Analyzing Lock-In Amplifier Techniques Using Python

Tuesday, August 15, 2017 4:10 PM (20 minutes)

Lock- in amplifiers work by extracting a signal that has been exposed to a noisy environment. It is very powerful where the signal can be detected even if it is much smaller than the accompanying noise. This is done by multiplying the signal by a reference function and filtering the result through a low pass filter. The purpose of this project is to analyze two mathematical approaches for the implementation of a lock-in amplifier to aid in noise reduction

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